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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,758	12/05/2003	Timothy Chen	36287 (140945)	3201

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EXAMINER	
LEE, WILSON	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,758	CHEN ET AL.	
	Examiner	Art Unit	
	Wilson Lee	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12-5-03* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2-23-04, 4-19-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a constant voltage supply circuit connected to said rectifier circuit" of Claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections – 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4, "voltage/current" is vague whether it refers to voltage, current or both. Lines 9-10, "to allow a high dimming operation" is vague because it is not clearly defined. How does the term "high" modify "dimming operation"?

In claim 8, line 4, "voltage/current" is vague whether it refers to voltage, current or both.

In claim 14, line 6,"voltage/currents" is vague whether it refers to voltage, current or both. Line 17, "voltage/current" is vague whether it refers to voltage, current or both.

Claim Rejections – 35 U.S.C. 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Mayer et al. (6,833,678).

Regarding Claim 1, Mayer (6,833,678) discloses an electronic ballast comprising:

- an input rectifier circuit (GR) for rectifying an input voltage (See Col. 4, lines 11-12);
- a voltage inverter circuit (T3, T4) for receiving a rectified input voltage from the input rectifier circuit, and for providing voltage or current to a discharge lamp (LP) (See abstract) for providing a dimmable light;
- a controller (CONT) for controlling the operation of the voltage inverter circuit; and
- a keep-alive feedback circuit (C2, J9, J10) for feeding back energy from the discharge lamp to the voltage inverter circuit (through D1) (See Col. 6, lines 15-20. *i.e.* It starts the oscillation of the power factor correction device again via C2).

Regarding Claim 2, Mayer discloses that keep-alive feedback circuit utilizes a capacitor (C2) for the feeding back energy (See Figure 3).

Regarding Claim 7, Mayer discloses a dimmable discharge lighting apparatus comprising: the electronic ballast of claim 1; and the discharge lamp (LP), wherein the apparatus is for providing a dimmable light when connected to a dimming circuit (PFC) for providing the input voltage (See Figure 1).

Claims 1-3 rejected under 35 U.S.C. 102(b) as being anticipated by Arts et al. (6,051,938).

Regarding Claim 1, Arts (6,051,938) discloses an electronic ballast comprising:

- an input rectifier circuit (LR) for rectifying an input voltage (See Figure 2);

- a voltage inverter circuit (S1, S2) for receiving a rectified input voltage from the input rectifier circuit, and for providing voltage or current to a discharge lamp (Li) (See Col. 4, lines 65-67, See Figure 2) for providing a dimmable light;
- a controller (CR) for controlling the operation of the voltage inverter circuit; and
- a keep-alive feedback circuit (C5, D7, and the rest of HR) for feeding back energy from the discharge lamp to the voltage inverter circuit (S1, S2) (through LR) (See Figure 2).

Regarding Claim 2, Arts discloses that keep-alive feedback circuit utilizes a capacitor (C5) for the feeding back energy (See Figure 2).

Regarding Claim 3, Arts discloses that

- the input rectifier (LR) comprises a plurality of diodes (D1-D4), and further wherein
- the keep-alive feedback circuit (C5, D7 and the rest of HR) comprises a capacitor (C5) connected to both the rectifier circuit (LR) and the discharge lamp (Li) for ensuring that at least one of the plurality of diodes is always conducting (diodes are always conducting).

Claims 8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Newman Jr. et al. (6,674,248).

Regarding Claim 8, Newman discloses an electronic ballast comprising:

- an input rectifier circuit (820) for rectifying an input voltage;

- a voltage inverter circuit (860) for receiving a rectified input voltage from said input rectifier circuit, and for providing voltage/current to a discharge lamp (880) for providing a dimmable light;
- a controller (882) for controlling the operation of the voltage inverter circuit; and
- a constant voltage supply circuit (884) for supplying a substantially constant voltage to said controller (882), wherein said constant voltage supply circuit provides said substantially constant voltage both at low input currents and at high input currents (AC current).

Regarding Claim 12, Newman discloses a keep-alive feedback circuit (890) for feeding back energy from said discharge lamp (880) to said voltage inverter circuit (860) to allow a high dimming operation of said apparatus.

IDS

Ribarich et al. "(2002/140,373)" has been withdrawn from consideration because it is an invalid number. Note that US PG publication comprises seven numbers after the four digit year.

Allowable subject matter

Claims 14-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 4-6, 9-11, 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Qian et al. (5,914,572) discloses a discharge lamp driving circuit having resonant circuit defining two resonance modes. Hernandez Martucci et al. (5,757,143) discloses a discharge lamp control circuit with feedback loop to lower harmonic distortion.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824. Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

11/14/05